



IV medication safety from the pharmacy to the bedside

Hazardous drug therapies pose significant patient and healthcare provider risks during preparation and administration.^{1,2,3} These processes can be inefficient and may lead to drug waste.⁴

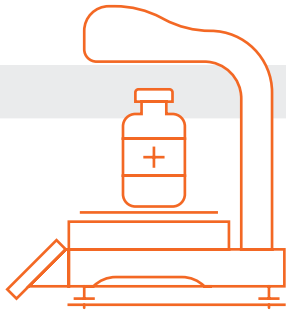
The BD IV workflow solutions may help standardize and streamline the IV compounding process from preparation through administration and documentation, while protecting healthcare workers from hazardous drug exposure throughout the enterprise.^{5,6}



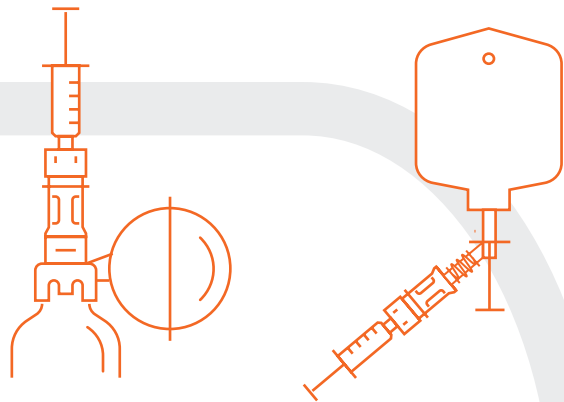


Pharmacy workflow

- 1 Pharmacist-verified order is sent to BD Pyxis IV Prep™

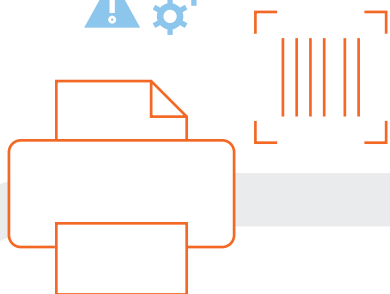


- 2 BD PhaSeal™ closed system transfer device is used for preparation.

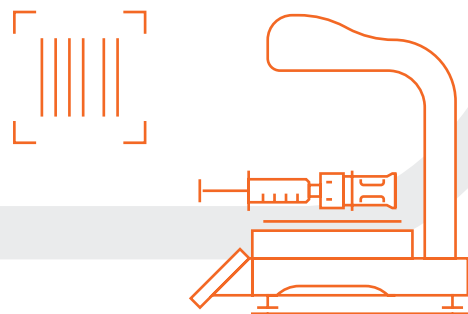


The Institute for Safe Medication Practices (ISMP) continues to recommend the use of gravimetric technology and barcode scanning for all pediatric and chemotherapy preparations.⁸

- 4 Pharmacist verifies preparation and the barcoded medication label is printed.



- 3 Scan the drug and perform gravimetric analysis.

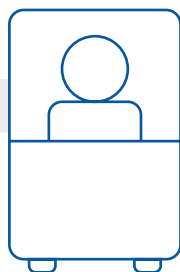


BD PhaSeal can help to prevent microbial ingress for up to 168 hours, within an ISO Class V environment following aseptic technique.¹⁰

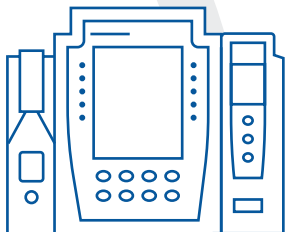


Nursing workflow

- 5 Nurse verifies label and prepares for administration of hazardous drugs utilizing BD PhaSeal closed system transfer device and BD Vascular Access Management portfolio of products.



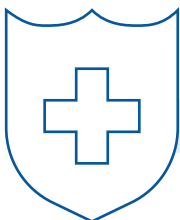
- 6 Assess patient. Scan patient ID, medication and BD Alaris™ System module.



BD PhaSeal achieves compliance with the USP <800> standard requiring the use of CSTDs for administration of hazardous drugs.⁹

Safety for healthcare workers and patients

BD PhaSeal and BD Pyxis IV Prep offers a unique solution to enable you to minimize drug waste, mitigate medication errors, reduce cost and protect healthcare safety workers against exposure.^{5,6,7}



- 7 Verify programmed parameters on pump and start infusion. Verify infusion status for documentation.



Areas of impact:



Improved healthcare worker safety



Reduced medication error risk



Reduced infection risk



Workflow efficiency



Reduced waste

References

1 Valanis BG, Vollmer WM, Labuhn KT, Glass AG. Acute symptoms associated with antineoplastic drug handling among nurses. *Cancer Nurs*. 1993;16(4):288-295. 2 McDiarmid MA, Oliver MS, Roth TS, Rogers B, Escalante C. Chromosome 5 and 7 abnormalities in oncology personnel handling anticancer drugs. *J Occup Environ Med*. 2010;52(10):1028-1034. 3 Preventing Occupational Exposures to Antineoplastic and Other Hazardous Drugs in Healthcare Settings. National Institute for Occupational Safety and Health. DHHS (NIOSH) Publication No 2004-165; 2004. 4 Edwards MS, Solomando DA, Grollman FR, Pang JL, Chasick AH, Hightman CM, Johnson AD, Mickens MG, Preston LM. Cost savings realized by use of the BD PhaSeal closed-system transfer device for preparation of antineoplastic agents. *J Oncol Pharm Practice*. 2013;19(4):338-347. 5 Reece KM, Lozano MA, Roux R, Spivey SM. Implementation and evaluation of a gravimetric iv workflow software system in an oncology ambulatory care pharmacy. *American Journal of Health-System Pharmacy*. 2016;73(3):165-73. 6 Yoshida J, Tei G, Mochizuki C, Masu Y, Koda S, Kumagai S. Use of a closed system device to reduce occupational contamination and exposure to antineoplastic drugs in the hospital work environment. *Annals of occupational hygiene*. 2009;53(2):153-60. 7 Terkola R, Czejka M, Bérubé J. Evaluation of real-time data obtained from gravimetric preparation of antineoplastic agents shows medication errors with possible critical therapeutic impact: Results of a large-scale, multicentre, multinational, retrospective study. *Journal of Clinical Pharmacy and Therapeutics*. 2017. 8 2018-2019 Targeted Medication Safety Best Practices for Hospitals. Retrieved from: <https://www.ismp.org/sites/default/files/attachments/2017-12/TMSBP-for-Hospitalsv2.pdf> 9 USP <800> General Chapter Hazardous Drugs – Handling in Healthcare Settings, 2017. 10 Ho, Determination of extended sterility for single-use vials using the BD PhaSeal closed system transfer device. *J Hematol Oncol Pharm*. 2016;6(2):46-50.

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